

Title (en)

SEPARATOR FOR POWER STORAGE DEVICE, AND POWER STORAGE DEVICE

Title (de)

SEPARATOR FÜR ENERGIESPEICHERVORRICHTUNG UND ENERGIESPEICHERVORRICHTUNG

Title (fr)

SÉPARATEUR POUR DISPOSITIF DE STOCKAGE D'ÉNERGIE ET DISPOSITIF DE STOCKAGE D'ÉNERGIE

Publication

EP 4216248 A1 20230726 (EN)

Application

EP 21869427 A 20210916

Priority

- JP 2020157278 A 20200918
- JP 2020157298 A 20200918
- JP 2020157385 A 20200918
- JP 2020157431 A 20200918
- JP 2021142577 A 20210901
- JP 2021142586 A 20210901
- JP 2021142591 A 20210901
- JP 2021034173 W 20210916

Abstract (en)

Provided are a thin-film separator for a power storage device, the separator having high strength and reduced clogging, and a power storage device separator that provides high strength, high level of safety, and high dimensional stability at high temperature, and that can be formed in a thin film. One aspect provides a power storage device separator comprising a fine-porous layer (X) consisting mainly of polyolefin (A), the fine-porous layer (X) having a melt flow rate of less than or equal to 0.9 g/10 min, and having an average long-hole diameter of more than or equal to 100 nm according to MD-TD surface observation or ND-MD cross-sectional observation with a scanning electron microscope. One aspect provides a power storage device separator comprising a fine-porous layer, the fine-porous layer comprising a polyolefin having a melt flow rate of less than or equal to 0.7 g/10 min, the power storage device separator having a short temperature of more than or equal to 200°C and a thermal shrinkage of TD # 1% and MD # 4%.

IPC 8 full level

H01G 11/06 (2013.01); **H01G 11/52** (2013.01); **H01M 50/409** (2021.01)

CPC (source: EP KR US)

H01G 11/06 (2013.01 - KR); **H01G 11/52** (2013.01 - EP KR); **H01M 10/052** (2013.01 - EP); **H01M 10/0525** (2013.01 - EP);
H01M 10/4235 (2013.01 - EP US); **H01M 50/403** (2021.01 - EP); **H01M 50/406** (2021.01 - EP); **H01M 50/409** (2021.01 - EP);
H01M 50/414 (2021.01 - EP); **H01M 50/417** (2021.01 - EP KR US); **H01M 50/449** (2021.01 - EP KR); **H01M 50/489** (2021.01 - EP KR US);
H01M 50/491 (2021.01 - EP US); **H01M 50/494** (2021.01 - EP); **H01G 9/02** (2013.01 - EP); **H01G 11/06** (2013.01 - EP);
H01M 2220/20 (2013.01 - EP KR); **H01M 2220/30** (2013.01 - EP KR); **Y02E 60/10** (2013.01 - EP)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

EP 4216248 A1 20230726; EP 4216248 A4 20240424; CN 115885359 A 20230331; KR 20220162781 A 20221208; TW 202218234 A 20220501;
TW I824296 B 20231201; US 2023282933 A1 20230907; WO 2022059744 A1 20220324

DOCDB simple family (application)

EP 21869427 A 20210916; CN 202180050880 A 20210916; JP 2021034173 W 20210916; KR 20227038464 A 20210916;
TW 110134550 A 20210916; US 202118019168 A 20210916